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THE TYPES OF POMPILIDAE (HYMENOPTERA), DESCRIBED BY EDUARD EVERSMAAN IN THE ZOOLOGICAL INSTITUTE, ST. PETERSBURG, RUSSIA

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A review of type specimens of eleven nominal taxa, described by E. Eversmann is given. The lectotypes are designated for *Pompilus fasciatus* Eversmann, 1849, *P. rubellus* Eversmann, 1846, *P. ruficeps* Eversmann, 1849, *P. strigosus* Eversmann, 1849, *P. variabilis* Eversmann, 1849, and *Priocnemis flavus* Eversmann, 1849. New synonymy is proposed for *Arachnotheutes rufithorax* (Costa, 1881) = *Pompilus affinis* Eversmann, 1849 (nom. praeocc., nec Vander Linden, 1827), **syn. n.**; *Eoferreola rhombica* (Christ, 1791) = *Pompilus fasciatus* Eversmann, 1849, **syn. n.**; *Eoferreola variabilis* (Eversmann, 1849) = *Ferreola distincta* Smith, 1855, **syn. n.** Two species are reinstated in the genus *Lophopompilus* Radoszkowski, 1887: *L. grandis* (Eversmann, 1846), **stat. resurr., comb. n.** and *L. uncinatus* (Pérez, 1905), **stat. resurr., comb. n.** New combination is proposed for *Cryptocheilus* (*Adonta*) *strigosus* (Eversmann, 1849), **comb. n.** Key to four Palearctic species of *Lophopompilus* is given.

KEY WORDS: Hymenoptera, Pompilidae, spider wasps, taxonomy, types, E. Eversmann, new synonymy, key.

А. С. Лелей¹⁾, В. М. Локтионов¹⁾, П. Роза²⁾. Типы дорожных ос (Hymenoptera), описанных Эдуардом Эверсманном в Зоологическом институте, Санкт-Петербург, Россия // Дальневосточный энтомолог. 2016. N 319. С. 1-14.

Дан обзор типовых экземпляров 11 номинальных таксонов, описанных Э. Эверсманном. Обозначены лектотипы для *Pompilus fasciatus* Eversmann, 1849, *P. rubellus* Eversmann, 1846, *P. ruficeps* Eversmann, 1849, *P. strigosus* Eversmann, 1849, *P. variabilis* Eversmann, 1849, and *Priocnemis flavus* Eversmann, 1849. Предложена новая синонимия для *Arachnotheutes rufithorax* (Costa, 1881) = *Pompilus affinis* Eversmann, 1849 (nom. praeocc., nec Vander Linden, 1827), **syn. n.**; *Eoferreola rhombica* (Christ, 1791) = *Pompilus fasciatus* Eversmann, 1849, **syn. n.**; *Eoferreola variabilis* (Eversmann, 1849) = *Ferreola distincta* Smith, 1855, **syn. n.** В роде *Lophopompilus* Radoszkowski, 1887 восстановлен статус двух видов: *L. grandis* (Eversmann, 1846), **stat. resurr.**, **comb. n.** и *L. unicinctus* (Pérez, 1905), **stat. resurr.**, **comb. n.** Предложена новая комбинация для *Cryptocheilus* (*Adonta*) *strigosus* (Eversmann, 1849), **comb. n.** Дана определительная таблица четырех палеарктических видов рода *Lophopompilus*.

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INTRODUCTION

E.A. Eversmann was the first (after P.S. Pallas) who studied the spider wasps in the Russian Empire. In his first paper (Eversmann, 1846) he described two new species from Russia and Kazakhstan: *Pompilus rubellus* and *P. grandis*. In the second paper (Eversmann, 1849) he gave the first catalogue of the Pompilidae of Russia (7 genera, 37 species). The Eversmann's collection of insects, including most of his types, was bought by the Russian Entomological Society and currently is deposited at the Zoological Institute, St. Petersburg. Eduard Eversmann described 10 species and one variety of pompilid wasps (six of them are currently valid), but most of his new taxa of Pompilidae which were prepared for the second edition of "Fauna hymenopterologica" were unpublished. Here we gave in alphabet order the type material of published pompilid taxa which are deposited in Zoological Institute, St. Petersburg, Russia. The distribution species will be given in the coming catalogue of Pompilidae of Russia (Loktionov & Lelej, in litt.).

MATERIAL AND METHODS

The type material of Pompilidae, described by E. Eversmann is deposited in the Zoological Institute, St. Petersburg, Russia. Comparative and additional material of Pompilidae from the collection of this institute as from the Institute of Biology and Soil Sciences, Vladivostok, Russia were studied also. Photographs of the types were taken with Nikon D-80 connected to the stereomicroscope Tegal SCZ and stacked with the software Combine ZP. Photographs of genitalia and metapostnotum are made by stereomicroscope SteREO Discovery.V12.

LIST OF THE TYPES

Agenia fallax Eversmann, 1849

Agenia fallax Eversmann, 1849: 380; Radoszkowski, 1889: 468, fig. 9, ♂.

TYPE LOCALITY. "*Cepi in prov[inciae] Orenburg[ensis] boreali*" [Russia, Orenburg Prov.].

TYPES. Holotype (syntypes) are absent in the collection of Zoological Institute, St. Petersburg and probably they are deposited in Museum für Naturkunde der Humboldt-Universität, Berlin, Germany. Quite possible that Eversmann (1849) had only one male for the description (body length is exactly $3\frac{3}{4}$ lines = 7.9 mm), which later has been studied by O. Radoszkowski (1889). Another species of Eversmann, which was studied by Radoszkowski (1889), *Salius hellmanni* Eversmann, 1849, is deposited in Museum für Naturkunde der Humboldt-Universität, Berlin, Germany (Wahis & Schmid-Egger, 2002).

CURRENT STATUS. Junior subjective synonym of *Pompilus albifrons* Dalman, 1823 according to Haupt, 1927: 144.

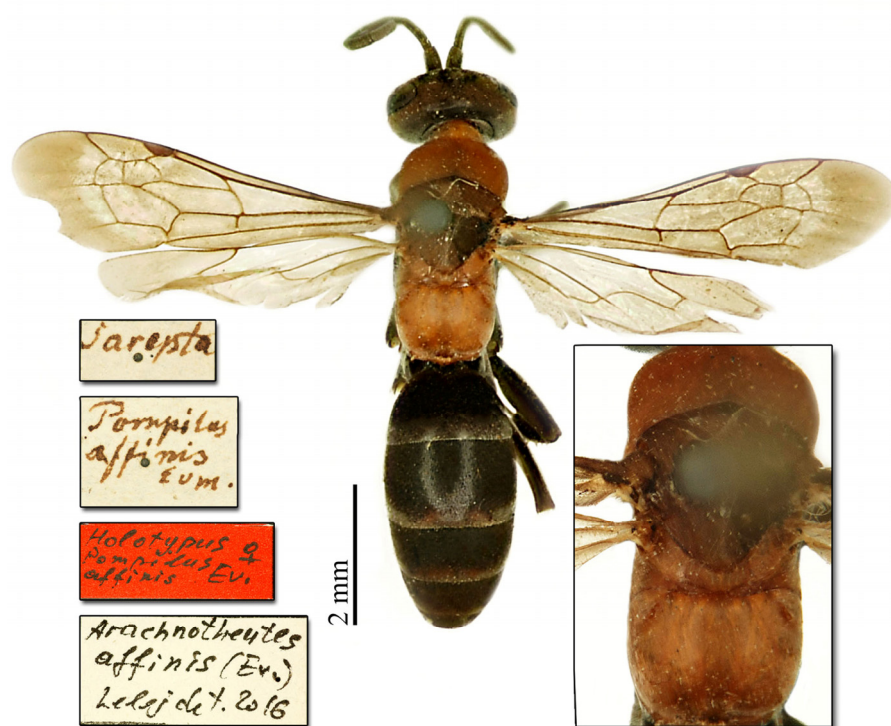


Fig. 1. *Pompilus affinis* Eversmann, 1849, holotype, ♀. Habitus, enlarged propodeum and labels. Photo by P. Rosa.

***Pompilus affinis* Eversmann, 1849**

Fig. 1

Pompilus affinis Eversmann, 1849: 376, ♀, nom. praeocc., nec Vander Linden, 1827.

TYPE LOCALITY. "*Hab. ad Volgam inferiorem*" [Lower part of Volga River].

HOLOTYPE. ♀, "Sarepta [Russia, Volgograd Prov., Volgograd] // *Pompilus / affinis* / Evm. // Holotypus / ♀ / *Pompilus / affinis* Ev. // *Arachnotheutes / affinis* (Ev.) / Lelej det. 2016".

CURRENT STATUS. *Arachnotheutes rufithorax* (Costa, 1881) = *Pompilus affinis* Eversmann, 1849, **syn. n.** *Pompilus affinis* Eversmann, 1849 is a junior primary homonym and next oldest name among the many synonyms, *Pompilus rufithorax* Costa, 1881, should be used for this species according to Articles 23.3.5 and 60.2 of the Code (ICZN, 1999). Junior subjective synonym of *Sphex sanguinolenta* Fabricius, 1793 according to Wahis, 1986: 33.

***Pompilus fasciatus* Eversmann, 1849**

Fig. 2

Pompilus fasciatus Eversmann, 1849: 374, ♂.



Fig. 2. *Pompilus fasciatus* Eversmann, 1849, lectotype, ♂. Habitus, enlarged propodeum and labels. Photo by P. Rosa.

TYPE LOCALITY. "*Cepi circa Sareptam et in promont[oris] Uralensibus* " [Russia, Volgograd Prov., Volgograd; Russia, Orenburg Prov.].

LECTOTYPE (designated here), ♂, "Oren[burg] // Lectotypus ♂ / *Pompilus* / *fasciatus* Ev. // design. Lelej 2016 // *Eoferreola* ♂ / *rhombica* / (Christ) / Lelej det. 2016".

CURRENT STATUS. Junior subjective synonym of *Eoferreola rhombica* (Christ, 1791) = *Pompilus fasciatus* Eversmann, 1849, **syn. n.** Junior subjective synonym of *Eoferreola manticata* (Pallas, 1771) according to Wahis & Schmid-Egger, 2002: 54.

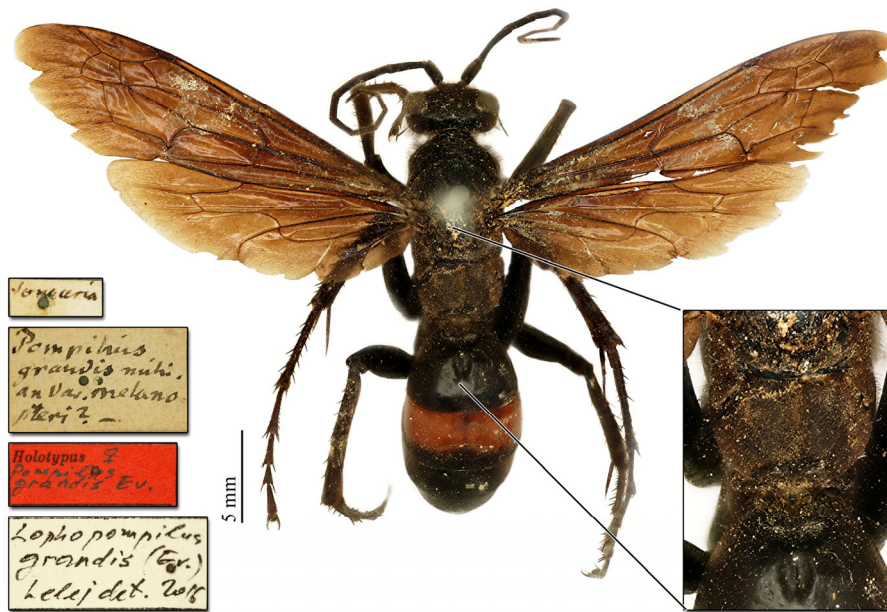


Fig. 3. *Pompilus grandis* Eversmann, 1846, holotype, ♀. Habitus, enlarged propodeum and labels. Photo by P. Rosa.

***Pompilius (!) grandis* Eversmann, 1846**

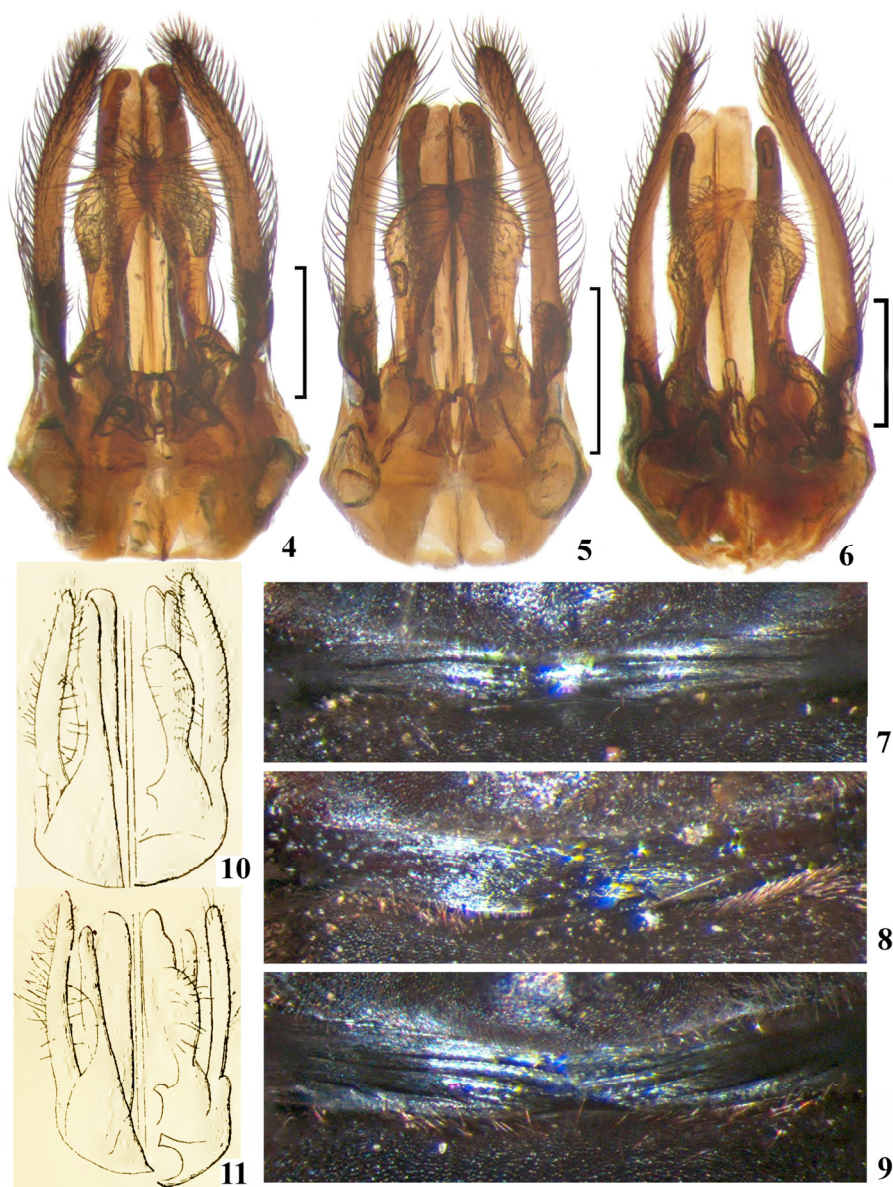
Figs 3, 5, 8, 11

Pompilius (!) grandis Eversmann, 1846: 443, tab. 5, fig. 2, ♀.

TYPE LOCALITY. "*Habitat in campis subaltaicis*" [Eastern Kazakhstan].

HOLOTYPE. ♀, "Songaria [Eastern Kazakhstan] // *Pompilius* / *grandis* mihi. / an Var. melano- / pteri ? // Holotypus ♀ / *Pompilus* / *grandis* Ev. // *Lophopompilus* / *grandis* (Ev.) / Lelej det. 2016".

CURRENT STATUS. Valid species, *Lophopompilus grandis* (Eversmann, 1846), **stat. resurr., comb. n.** Junior subjective synonym of *Sphex samariensis* Pallas, 1771 according to Wahis, 1986: 31.



Figs 4–11. *Lophopompilus* spp. 4–6, 10, 11 – male genitalia (4–6, ventral view, 10, 11, left – dorsal, right – ventral view); 7–9 – male metapostnotum. 4, 7 – *L. samariensis* (Pallas, 1771): 4 – Tuva, Russia, 7 – Eastern Kazakhstan; 5, 8, 11 – *L. grandis* (Eversmann, 1846): 5 – Tuva, Russia, 8 – Eastern Kazakhstan, 11 – *sensu* Radoszkowski, 1887; 6, 9 – *L. unicinctus* (Pérez, 1905), Japan, Kyushu; 10 – *L. przewalskii* (Radoszkowski, 1887). Scale bar for 4–6 = 0.5 mm. Photo by V. Loktionov. 10, 11, from Radoszkowski, 1887.

REMARKS. Given that we reinstate *Pompilus grandis* from the synonyms of *Sphex samariensis* Pallas, 1771 we here provide the key to four Palaearctic species of the genus *Lophopompilus* Radoszkowski, 1887. *Lophopompilus przewalskii* (Radoszkowski, 1887) described from Zaidam (China, Qinghai) differs from other Palaearctic species by totally black metasoma, without yellow-orange bands. The male genitalia of *Lophopompilus grandis* sensu Radoszkowski, 1887 (Fig. 11) from "Keria" (Keria Daria, China, Xinjiang) quite differs of that from Tuva (Eastern Siberia, Russia) and Eastern Kazakhstan which are close to the type locality, and probably belongs to undescribed species. Also we reinstate from the synonyms of *Sphex samariensis* Pallas, 1771 (Wahis, 2001) *Lophopompilus uncinatus* (Pérez, 1905), **stat. resurr., comb. n.**, which was described from Japan (Pérez, 1905).

The holotype of *Pompilus grandis* has been collected by P. Romanov (own collector of E. Eversmann) during his trip to Altai in 1840–1844 (Geptner, 1940).

Key to Palaearctic species of *Lophopompilus*

1. ♂♂ 2
- ♀♀ 5
2. Apex of paramere only slightly longer than apex of parapenial and penial lobes (Fig. 10). Metasomal terga without yellow-orange bands *L. przewalskii* (Radoszkowski, 1887)
- Apex of paramere distinctly longer than apex of parapenial and penial lobes (Figs 4–6). Metasomal tergum 2 or terga 2–3 basally with yellow-orange band 3
3. Volsella pointed apically, parapenial lobe shorter than penial one (Fig. 6). – Metapostnotum with distinct transverse deep furrows (Fig. 9). – Metasomal tergum 2 basally with yellow-orange band *L. uncinatus* (Pérez, 1905)
- Volsella rounded apically, parapenial lobe as long as penial one (Figs 4, 5) 4
4. Metapostnotum with distinct transverse deep furrows (Fig. 7). Distance between paramere apex and apex of parapenial lobe less than apical width of parapenial lobe. Metasomal terga 2 and 3 basally with yellow-orange band *L. samariensis* (Pallas, 1771)
- Metapostnotum without transverse furrows (Fig. 8). Distance between paramere apex and apex of parapenial lobe more than $2 \times$ apical width of parapenial lobe. Only metasomal tergum 2 basally with yellow-orange band *L. grandis* (Eversmann, 1846)
5. Metasomal terga without yellow-orange bands *L. przewalskii* (Radoszkowski, 1887)
- Metasomal tergum 2 or terga 2–3 basally with yellow-orange band 6
6. Metapostnotum without transverse furrows, shagreened (as in Fig. 8). – Only metasomal tergum 2 basally with yellow-orange band *L. grandis* (Eversmann, 1846)
- Metapostnotum with distinct transverse deep furrows (as in Figs 7, 9) 7
7. Metasomal terga 2 and 3 basally with red-orange band *L. samariensis* (Pallas, 1771)
- Only metasomal tergum 2 basally with red-orange band *L. uncinatus* (Pérez, 1905)

***Pompilius (!) rubellus* Eversmann, 1846**

Fig. 12

Pompilius (!) rubellus Eversmann, 1846: 442, tab. 5, fig. 1, ♀.

TYPE LOCALITY. "*Habitat in Caucaso, in campis australibus provinciae Orenburgensis et in Songoria*" [Caucasus; Russia, Orenburg Prov.; Eastern Kazakhstan].

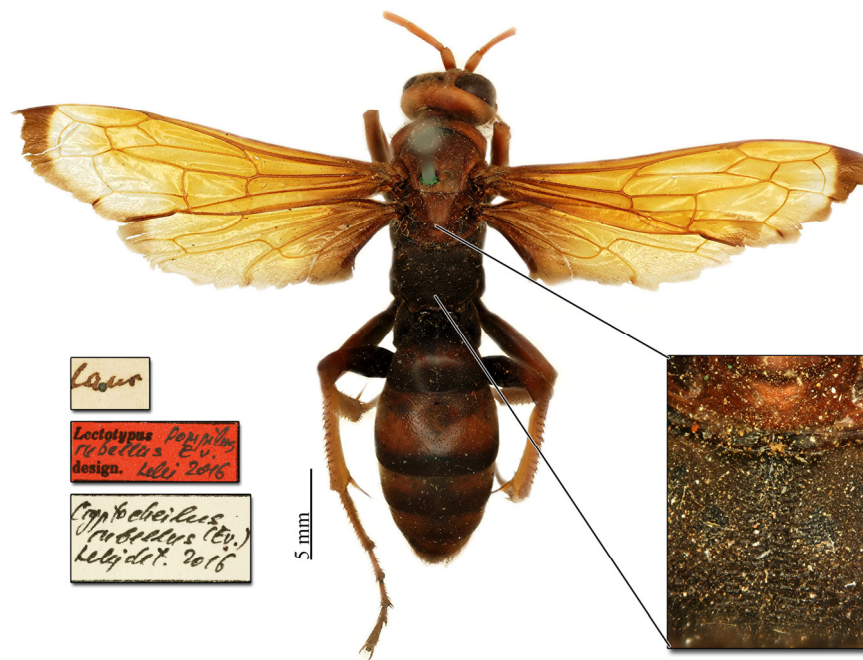


Fig. 12. *Pompilus rubellus* Eversmann, 1846, lectotype, ♀. Habitus, enlarged propodeum and labels. Photo by P. Rosa.

LECTOTYPE (designated here), ♀, "Cauc[asus] [Stavropol Terr., Russia] // Lectotypus *Pompilus / rubellus* Ev. / design. Lelej 2016 // *Cryptocheilus / rubellus* (Ev.) / Lelej det. 2016". **Paralectotypes.** 1 ♀, "Cauc[asus]"; 1 ♀, "Songaria" [Eastern Kazakhstan].

CURRENT STATUS. Valid species, *Cryptocheilus (Chyphonocheilus) rubellus* (Eversmann, 1846).

REMARKS. The material with the label "Caucasus" has been collected by E. Eversmann and student Ludwig in 1830 in the places between Stavropol and mountain Magshuk (near current Pyatigorsk) (Geptner, 1940; Garanin, 2002).

***Pompilus ruficeps* Eversmann, 1849**

Fig. 13

Pompilus ruficeps Eversmann, 1849: 376, ♀.

TYPE LOCALITY. "*Cepi circa Sareptam*" [Russia, Volgograd Prov., Volgograd].

LECTOTYPE (designated here), ♀, "Sarepta // Lectotypus ♀ / *Pompilus* / *ruficeps* Ev. / design. Lelej 2016 // *Agenioideus* / *ruficeps* (Ev.) / Lelej det. 2016".

Paralectotype. 1 ♀, "Kirgis" [Western Kazakhstan].

CURRENT STATUS. Valid species, *Agenioideus* (*Schizanoplius*) *ruficeps* (Eversmann, 1849).

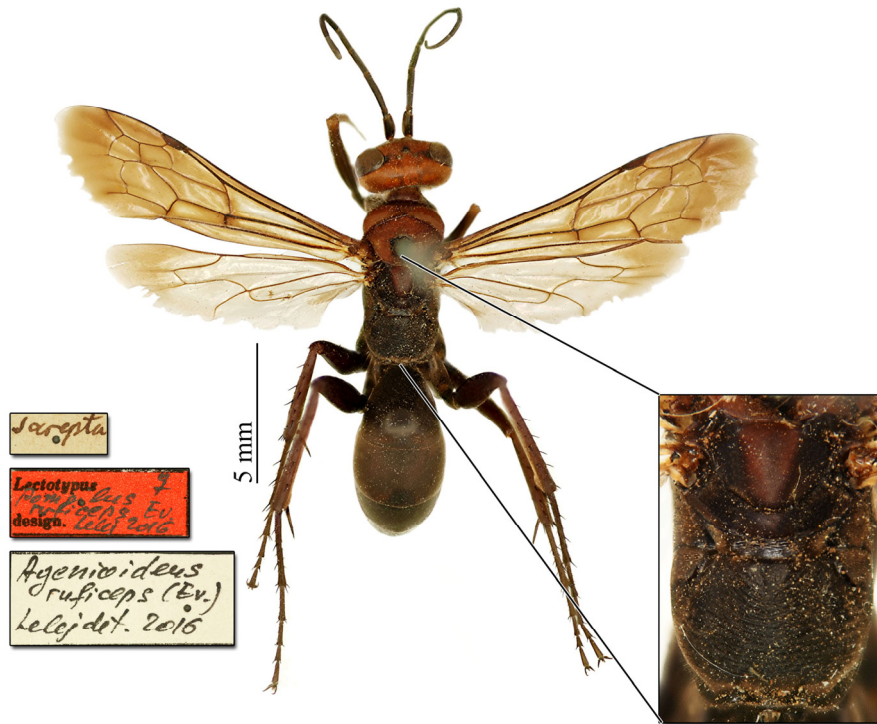


Fig. 13. *Pompilus ruficeps* Eversmann, 1849, lectotype, ♀. Habitus, enlarged propodeum and labels. Photo by P. Rosa.

***Pompilus strigosus* Eversmann, 1849**

Fig. 14

Pompilus strigosus Eversmann, 1849: 378, ♀.

TYPE LOCALITY. "*Cepi circa Orenburgum et in campis transuralensibus*" [Russia, Orenburg Prov.].

LECTOTYPE (designated here), ♀, "Orb [Orenburg] // Lectotypus ♀ / *Pompilus strigosus* Evesm. / design. Lelej 2016 // *Cryptocheilus strigosus* (Ev.) / Lelej det. 2016". **Paralectotype**. 1 ♀, "Songaria" [Eastern Kazakhstan].

CURRENT STATUS. Valid species, *Cryptocheilus (Adonta) strigosus* (Eversmann, 1849), **comb. n.**



Fig. 14. *Pompilus strigosus* Eversmann, 1849, lectotype, ♀. Habitus, enlarged propodeum and labels. Photo by P. Rosa.

***Pompilus trivialis* var. *maris* Eversmann, 1849**

Pompilus trivialis var. *maris* Eversmann, 1849: 373.

TYPE LOCALITY. "Non rarus in prov. Casan. et Orenburgensi" [Russia: Tatar Republic and Orenburg Prov.].

TYPES. The syntypes of this taxa were did not found in the Eversmann's collection in Zoological Institute (St. Petersburg).

CURRENT STATUS. Quite possible that this variety belongs to *Arachnospila (Ammosphex) trivialis* (Dahlbom, 1843).

***Pompilus variabilis* Eversmann, 1849**

Fig. 15

Pompilus variabilis Eversmann, 1849: 376, ♀.

TYPE LOCALITY. "Hab. ad Volgam inferiorem" [Lower part of Volga River].

LECTOTYPE (designated here), ♀, "Kalm[ykia] [Russia, Kalmyk Republic] // *Pom. di- / midiatu* ? / Dahlb. III. p. / 446. n. 25 // Lectotypus ♀ / *Pompilus / variabilis* Ev. / design. Lelej 2016 // *Eoferreola / variabilis* / ♀ (Ev.) / Lelej det. 2016". **Paralectotypes:** 1 ♀, without label [*Eoferreola manticata* f. *batrachiorum* (Dalla Torre, 1897), Lelej det.]; 1 ♀, "Orsk" [Russia, Orenburg Prov.], [*Eoferreola erythraea* (Pallas, 1773), Lelej det.]; 1 ♀, "Inders[k]" [Western Kazakhstan], [*Eoferreola erythraea* (Pallas, 1773), Lelej det.]; 1 ♀, "Kalm[ykia]" [Russia, Kalmyk Republic], [*Eoferreola erythraea* (Pallas, 1773), Lelej det.]; "Spassk" [Russia, Orenburg Prov.], [*Eoferreola erythraea* (Pallas, 1773), Lelej det.].



Fig. 15. *Pompilus variabilis* Eversmann, 1849, lectotype, ♀. Habitus, enlarged propodeum and labels. Photo by P. Rosa.

CURRENT STATUS. Valid species, *Eoferreola variabilis* (Eversmann, 1849) = *Ferreola distincta* Smith, 1855, **syn. n.**

REMARK. *Pompilus variabilis* Eversmann, 1849 and *Sphex variabilis* Rossius, 1790 were the secondary homonyms in the past, but currently the former belongs to genus *Eoferreola* Arnold, 1935 and the latter to genus *Cryptocheilus* Panzer, 1806. Both names are valid according to Article 59.2 of the Code (ICZN, 1999).

***Priocnemis flavus* Eversmann, 1849**

Fig. 16

Priocnemis flavus Eversmann, 1849: 382, ♀.

TYPE LOCALITY. "*Hab. in campis Orenburgensibus et ad Volgam inferiorem*" [Russia, Orenburg Prov.; lower part of Volga River].

LECTOTYPE (designated here), ♀, "Sarepta [Russia, Volgograd Prov., Volgograd] // Lectotypus ♀ / *Priocnemis / flavus* Ev. / design. Lelej 2016 // *Cryptocheilus / flavus* (Ev.) / ♀ / Lelej det. 2016". **Paralectotypes:** 1♀, "Sarepta" [Russia, Volgograd Prov., Volgograd]; 1♂, "Orb" [Russia, Orenburg Prov., Orenburg].

CURRENT STATUS. Valid species, *Cryptocheilus (Adonta) flavus* (Eversmann, 1849).

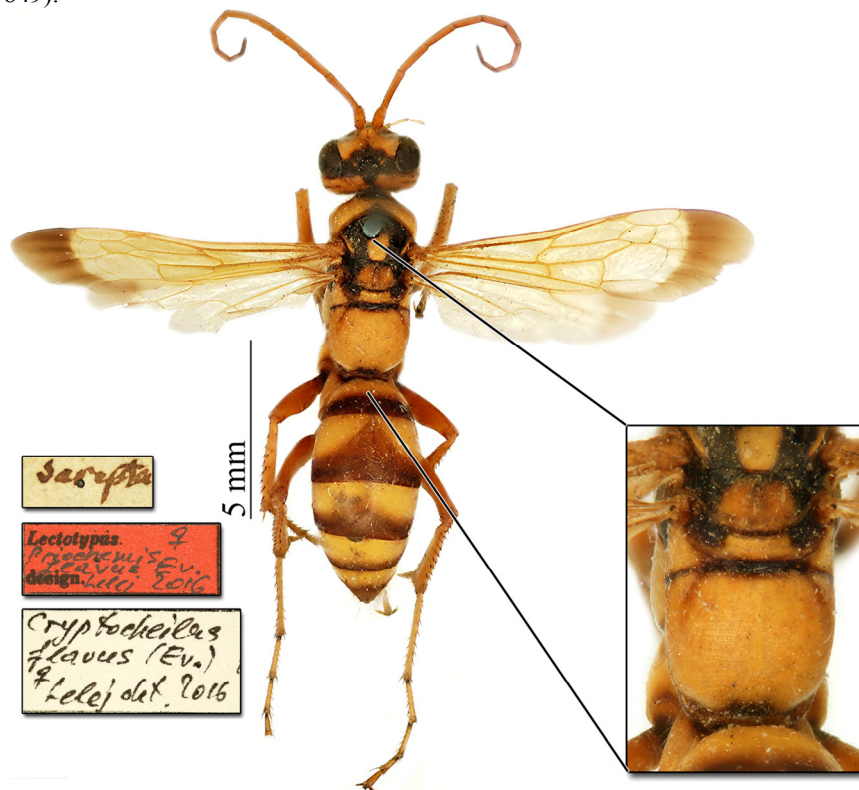


Fig. 16. *Priocnemis flavus* Eversmann, 1849, lectotype, ♀. Habitus, enlarged propodeum and labels. Photo by P. Rosa.

REMARKS. *Sphex flava* Fabricius, 1775 was placed in the genus *Mygnumia* Shuckard, 1840 since Smith, 1855, and later (Ashmead, 1900) was designated as a type species of this genus. Dalla Torre (1897) combined in the genus *Salix* Fabricius, 1804 (nom. praeocc., nec Schrank, 1798) twelve genera and proposed many

replacement names for the secondary homonyms, but several years later most of these genera including *Mygymia* Shuckard were reinstated (Ashmead, 1900). The replacement name *Salius desertorum* Morawitz, 1891 for *Priocmenis flavus* Eversmann, 1849 was not used until 1972 (Wolf & Móczár, 1972) and according to Articles 59.3 and 59.4 of the Code (ICZN, 1999) *flavus* Eversmann, 1849 should be reinstated.

***Salius hellmanni* Eversmann, 1849**

Salius Hellmanni Eversmann, 1849: 378, ♂.

Ferreola hellmanni: Radoszkowski, 1889: 475, fig. 17, ♂.

TYPE LOCALITY. "*Hab. ad Volgam inferiorem*" [Lower part of Volga River].

LECTOTYPE (designated by Wahis & Schmid-Egger, 2002: 54), ♂, "*Sarepta*" [Russia, Volgograd Prov., Volgograd], deposited in Museum für Naturkunde der Humboldt-Universität, Berlin, Germany.

CURRENT STATUS. Junior subjective synonym of *Eoferreola manticata* (Pallas, 1771) according to Wahis & Schmid-Egger, 2002: 54.

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